Amendment And Response Serial No. 10/581,177 Page -2-

In The Claims:

Please replace the previously presented claim set with the following replacement claim set:

1. (Currently Amended) A compound of formula I:

$$(CRa_2)p$$
 $(CRa_2)p$
 $(CRa_2)q$
 R^2
 R^3
 $N-X$
 $Y-R^1$
 (I)

wherein

 $X \text{ is } O \text{ or } NR^{11}$;

where R¹¹ is hydrogen, optionally substituted alkyl, optionally substituted aryl or optionally substituted heteroaryl;

Y is a single bond, C=O, C=S or S(O)_m:

where m is 0, 1 or 2;

R¹ is hydrogen, optionally substituted alkyl, optionally substituted alkoxycarbonyl, optionally substituted alkylcarbonyl, aminocarbonyl, optionally substituted alkylaminocarbonyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted alkoxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted heterocyclyloxy, cyano, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, formyl, optionally substituted heterocyclyl, optionally substituted alkylthio, NO or NR¹³R¹⁴;

where R^{13} and R^{14} are <u>each</u> independently hydrogen, COR^{15} , optionally substituted alkyl, optionally substituted aryl, optionally substituted heteroaryl, <u>or</u> optionally substituted heterocyclyl or R^{13} and R^{14} together with the N atom to which they are attached form a group $-N=C(R^{16})-NR^{17}R^{18}$;

Amendment And Response Serial No. 10/581,177 Page -3-

R¹⁵ is H, optionally substituted alkyl, optionally substituted alkoxy, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heteroaryloxy or NR¹⁹R²⁰;

R¹⁶, R¹⁷ and R¹⁸ are each independently H or lower alkyl;

R¹⁹ and R²⁰ are independently optionally substituted alkyl, optionally substituted aryl or optionally substituted heteroaryl;

R² and R³ are independently hydrogen, halogen, cyano, optionally substituted alkyl, optionally substituted alkoxy or optionally substituted aryl;

each R^4 is independently halogen, nitro, cyano, optionally substituted C_{1-8} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted C_{2-6} alkenyl, optionally substituted alkylaminocarbonyl, optionally substituted alkylaminocarbonyl, optionally substituted dialkylaminocarbonyl, optionally substituted C_{3-7} cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heteroaryloxy, optionally substituted alkoxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted alkylthio or $R^{21}R^{22}N_3$.

where R^{21} and R^{22} are, each independently, hydrogen, C_{1-8} alkyl, C_{3-7} cycloalkyl, C_{3-6} alkenyl, C_{3-6} alkynyl, C_{3-7} cycloalkyl(C_{1-4})alkyl, C_{2-6} haloalkyl, C_{1-6} alkoxy(C_{1-6})alkyl, or C_{1-6} alkoxycarbonyl or R^{21} and R^{22} together with the N atom to which they are attached form a five, six or seven-membered heterocyclic ring which may contain one or two further heteroatoms selected from O, N or S and which may be optionally substituted by one or two C_{1-6} alkyl groups;

or 2 adjacent groups R⁴ together with the carbon atoms to which they are attached form a 4, 5, 6,_or 7 membered carbocyclic or heterocyclic ring which may be optionally substituted by halogen;

n is 0, 1, 2, 3 or 4;

each Ra is independently hydrogen, halogen, hydroxy, cyano, optionally substituted C_{1-8} alkyl, optionally substituted C_{2-6} alkenyl, optionally substituted C_{2-6} alkynyl, optionally substituted alkylcarbonyl, optionally substituted alkylaminocarbonyl, optionally substituted C_{3-7} cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted

Amendment And Response Serial No. 10/581,177 Page -4-

heterocyclyl, optionally substituted alkoxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted alkylthio, optionally substituted arylthio or R²³R²⁴N;

where R^{23} and R^{24} are, each independently, hydrogen, C_{1-8} alkyl, C_{3-7} cycloalkyl, C_{3-6} alkenyl, C_{3-6} alkynyl, C_{3-7} cycloalkyl(C_{1-4})alkyl, C_{2-6} haloalkyl, C_{1-6} alkoxy(C_{1-6})alkyl, or C_{1-6} alkoxycarbonyl or R^{23} and R^{24} together with the N atom to which they are attached form a five, six or seven-membered heterocyclic ring which may contain one or two further heteroatoms selected from O, N or S and which may be optionally substituted by one or two C_{1-6} alkyl groups;

or two Ra groups attached to the same carbon atom are =O or two Ra groups attached to adjacent carbon atoms form a bond, or two Ra groups together with the carbon atom to which they are attached form a three- to seven-membered ring, that may be saturated or unsaturated, and that may contain one or two hetero atoms selected from the group consisting of N, O and S, and which may be optionally substituted by one or two C_{1-6} alkyl groups;

or two Ra groups together form a group -CH₂-, -CH=CH- or -CH₂CH₂; p is 0, 1, 2, 3, 4, 5 or 6; q is 0, 1, 2, 3, 4, 5 or 6 provided that p+q is 1, 2, 3, 4, 5 or 6; and

R⁸ is optionally substituted alkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted alkoxy, optionally substituted aryloxy, optionally substituted alkoxycarbonyl, optionally substituted alkylcarbonyl or optionally substituted alkenylcarbonyl; or salts or N-oxides thereof.

- 2. (Original) A compound according to claim 1 wherein X is NH and Y is a single bond or C=O.
- 3. (Previously Presented) A compound according to claim 1 wherein each Ra is hydrogen and R^2 and R^3 are each independently hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy or cyano.
- 4. (Currently Amended) A compound according to claim 1 wherein

 R^1 is hydrogen; C_{1-6} alkyl; C_{1-6} cyanoalkyl; C_{1-6} haloalkyl; C_{3-7} cycloalkyl(C_{1-4})alkyl; C_{1-6} alkoxy(C_{1-6})alkyl; heteroaryl(C_{1-6})alkyl (wherein the heteroaryl group may be optionally

Amendment And Response Serial No. 10/581,177 Page -5-

substituted by halo, nitro, cyano, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{1-6} alkylsulfonyl, C_{1-6} alkylsulfinyl, C_{1-6} alkylthio, C_{1-6} alkoxycarbonyl, C_{1-6} alkylcarbonylamino, or arylcarbonyl, or two adjacent positions on the heteroaryl system ring may be cyclised to form a 5, 6 or 7 membered carbocyclic or heterocyclic ring, itself optionally substituted with halogen); aryl(C_{1-6})alkyl (wherein the aryl group may be optionally substituted by halo, nitro, cyano, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{1-6} alkylsulfonyl, C_{1-6} alkylsulfinyl, C_{1-6} alkylthio, C_{1-6} alkoxycarbonyl, C_{1-6} alkylcarbonylamino, or arylcarbonyl, or two adjacent positions on the aryl system ring may be cyclised to form a 5, 6 or 7 membered carbocyclic or heterocyclic ring, itself optionally substituted with halogen); C_{1-6} alkylcarbonylamino(C_{1-} 6) alkyl; aryl (which may be optionally substituted by halo, nitro, cyano, C_{1-6} alkyl; C_{1-6} haloalkyl, C₁₋₆ alkoxy, C₁₋₆ haloalkoxy, C₁₋₆ alkylsulfonyl, C₁₋₆ alkylsulfinyl, C₁₋₆ alkylthio, C₁₋₆ alkoxycarbonyl, C_{1-6} alkylcarbonylamino, or arylcarbonyl, or two adjacent positions on the arylsystem ring may be cyclised to form a 5, 6 or 7 membered carbocyclic or heterocyclic ring, itself optionally substituted with halogen); heteroaryl (which may be optionally substituted by halo, nitro, cyano, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{1-6} alkylsulfonyl, C_{1-6} alkylsulfinyl, C_{1-6} alkylthio, C_{1-6} alkoxycarbonyl, C_{1-6} alkylcarbonylamino, or arylcarbonyl, or two adjacent positions on the heteroaryl system ring may be cyclised to form a 5, 6 or 7 membered carbocyclic or heterocyclic ring, itself optionally substituted with halogen); C_{1-6} alkoxy; C₁₋₆ haloalkoxy; phenoxy (wherein the phenyl group is optionally substituted by halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, CN, NO₂, aryl, heteroaryl, amino or dialkylamino); heteroaryloxy (optionally substituted by halo, nitro, cyano, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy or C_{1-6} haloalkoxy); heterocyclyloxy (optionally substituted by halo, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy or C_{1-6} haloalkoxy); cyano; C_{2-6} alkenyl; C_{2-6} alkynyl; C₃₋₆ cycloalkyl; C₅₋₇ cycloalkenyl; heterocyclyl (optionally substituted by halo, nitro, cyano, C₁₋ 6 alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy or C_{1-6} haloalkoxy); C_{1-6} alkylthio or NR¹³R¹⁴; and

where R^{13} and R^{14} are <u>each</u> independently hydrogen; C_{1-6} alkyl; C_{1-6} haloalkyl; C_{1-6} alkoxy(C_{1-6})alkyl; phenyl (which may be optionally substituted by halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1} , heteroaryl, amino, dialkylamino or C_{1-4} alkoxycarbonyl); phenyl (C_{1-6})alkyl (wherein the phenyl group may be optionally substituted by

Amendment And Response Serial No. 10/581,177 Page -6-

halogen, C₁₋₄ alkyl, C₁₋₄ alkoxy, C₁₋₄ haloalkyl, C₁₋₄ haloalkoxy, CN, NO₂, aryl, heteroaryl, amino, dialkylamino, C₁₋₆ alkylsulfonyl, C₁₋₆ or alkoxycarbonyl, or two adjacent positions on the phenyl ring may be cyclised to form a 5, 6 or 7 membered carbocyclic or heterocyclic ring, itself optionally substituted with halogen)_{5,2} heteroaryl (C₁₋₆)alkyl (wherein the heteroaryl group may be optionally substituted by halo, nitro, cyano, C₁₋₆ alkyl, C₁₋₆ haloalkyl, C₁₋₆ alkoxy, C₁₋₆ haloalkoxy, C₁₋₆ alkylsulfonyl, C₁₋₆ alkylsulfinyl, C₁₋₆ alkylthio, C₁₋₆ alkoxycarbonyl, C₁₋₆ alkylcarbonylamino, or arylcarbonyl, or two adjacent positions on the heteroaryl system ring may be cyclised to form a 5, 6 or 7 membered carbocyclic or heterocyclic ring, itself optionally substituted with halogen)_{7,2} or heteroaryl (which may be optionally substituted by (i) halo, (ii) nitro, (iii) cyano, (iv) C₁₋₆ alkyl, (v) C₁₋₆ haloalkyl, (vi) C₁₋₆ alkoxy₂ er (vii) C₁₋₆ haloalkoxy, (viii) C₁₋₄ alkoxycarbonyl, (ix) C₁₋₆ alkylcarbonylamino, (x) phenyloxycarbonylamino (wherein the phenyl group is optionally substituted by halogen, C₁₋₄ alkyl, C₁₋₄ haloalkyl, C₁₋₄ haloalkoxy, CN, NO₂, aryl, heteroaryl, amino or dialkylamino).

5. (Currently Amended) A compound according to claim 1 wherein

each R^4 is independently halogen; cyano; C_{1-8} alkyl; C_{1-8} haloalkyl; C_{1-6} cyanoalkyl; alkoxy(C_{1-6})alkyl; C_{3-7} cycloalkyl(C_{1-6})alkyl; C_{5-6} cycloalkenyl(C_{1-6})alkyl; C_{3-6} alkenyloxy(C_{1-6})alkyl; C_{3-6} alkynyloxy(C_{1-6})alkyl; aryloxy(C_{1-6})alkyl; C_{1-6} carboxyalkyl; C_{1-6} alkylcarbonyl(C_{1-6})alkyl; C_{2-6} alkenylcarbonyl(C_{1-6})alkyl; C_{2-6} alkynylcarbonyl(C_{1-6})-alkyl; C_{1-6} alkoxycarbonyl(C_{1-6})alkyl; C_{3-6} alkenyloxycarbonyl(C_{1-6})alkyl; C_{3-6} alkynyloxycarbonyl(C_{1-6})alkyl; aryloxycarbonyl(C_{1-6})alkyl; C_{1-6} alkylthio(C_{1-6})alkyl; C_{1-6} alkylsulfonyl(C_{1-6})alkyl; aminocarbonyl(C_{1-6})alkyl; C_{1-6} alkylsulfinyl(C_{1-6})alkyl; C_{1-6} alkylaminocarbonyl(C_{1-6})alkyl $\frac{1}{5}$; di(C_{1-6})alkylaminocarbonyl(C_{1-6})alkyl $\frac{1}{5}$; phenyl(C_{1-4})alkyl (wherein the phenyl group is optionally substituted by halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, CN, NO₂, aryl, heteroaryl, amino or dialkylamino); heteroaryl(C₁₋₄)alkyl (wherein the heteroaryl group is optionally substituted by halo, nitro, cyano, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy or C_{1-6} haloalkoxy); heterocyclyl(C_{1-4})alkyl (wherein the heterocyclyl group is optionally substituted by halo, nitro, cyano, C₁₋₆ alkyl, C₁₋₆ haloalkyl, C₁₋₆

Amendment And Response Serial No. 10/581,177 Page -7-

haloalkoxy); C_{2-6} aminocarbonyl(C_{2-6})alkenyl₃; alkoxy alkenyl; $di(C_{1-6})alkylaminocarbonyl(C_{2-6})alkenyl_{\frac{1}{2}}$ alkylaminocarbonyl(C_{2-6})alkenyl₅; alkenyl, (wherein the phenyl group is optionally substituted by halogen, C₁₋₄ alkyl, C₁₋₄ alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, CN, NO₂, aryl, heteroaryl, amino or dialkylamino); C_{2-6} alkynyl; trimethylsilyl(C_{2-6})alkynyl; aminocarbonyl(C_{2-6})alkynyl; C_{1-6} alkylaminocarbonyl(C_{2-6}) 6) alkynyl; $di(C_{1-6})$ alkylaminocarbonyl (C_{2-6}) alkynyl; C_{1-6} alkoxycarbonyl; C_{3-7} cycloalkyl; C_{3-7} halocycloalkyl; C_{3-7} cyanocycloalkyl; C_{1-3} alkyl (C_{3-7}) -cycloalkyl; C_{1-3} alkyl (C_{3-7}) -cycloalkyl; 7)halocycloalkyl; phenyl (optionally substituted by halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C₁₋₄ haloalkoxy, CN, NO₂, aryl, heteroaryl, amino or dialkylamino); heteroaryl (optionally substituted by halo, nitro, cyano, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy or C_{1-6} haloalkoxy); or heterocyclyl (wherein the heterocyclyl group is optionally substituted by halo, nitro, cyano, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy or C_{1-6} haloalkoxy);

or 2 adjacent groups R^4 together with the carbon atoms to which they are attached form a 4, 5, 6 or 7 membered carbocylic or heterocyclic ring which may be optionally substituted by halogen; C_{1-8} alkoxy; C_{1-6} haloalkoxy; phenoxy (optionally substituted by halo, nitro, cyano, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy or C_{1-6} haloalkoxy); heteroaryloxy (optionally substituted by halo, nitro, cyano, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{1-6} haloalkyl);

where R^{19} and R^{20} are, each independently, hydrogen, C_{1-8} alkyl, C_{3-7} cycloalkyl, C_{3-6} alkenyl, C_{3-6} alkynyl, C_{2-6} haloalkyl, or C_{1-6} alkoxycarbonyl;

or R^{19} and R^{20} together with the N atom to which they are attached form a five, six or seven-membered heterocyclic ring which may contain one or two further heteroatoms selected from O, N or S and which may be optionally substituted by one or two C_{1-6} alkyl groups; and n is 0, 1, 2 or 3.

6. (Currently Amended) A compound according to claim 1 wherein

 R^8 is C_{1-10} alkyl; C_{1-10} haloalkyl; aryl(C_{1-6})alkyl (wherein the aryl group is optionally substituted by halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, CN, NO₂, aryl, heteroaryl, amino or dialkylamino); heteroaryl(C_{1-6})alkyl (wherein the heteroaryl group is optionally substituted by halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, CN,

Amendment And Response Serial No. 10/581,177 Page -8-

 NO_2 , aryl, heteroaryl, amino or dialkylamino); arylcarbonyl- (C_{1-6}) alkyl (wherein the aryl group may be optionally substituted by halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, CN, NO₂, aryl, heteroaryl, amino or dialkylamino and the alkyl group may be optionally substituted by aryl $\frac{1}{2.8}$ C₂₋₈ alkenyl $\frac{1}{2.8}$ haloalkenyl $\frac{1}{2.8}$ aryl(C₂₋₆)-alkenyl (wherein the aryl group is optionally substituted by halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, CN, NO₂, aryl, heteroaryl, amino, or dialkylamino, or C₁₋₆ alkoxycarbonyl, or two adjacent substituents on the aryl group can cyclise to form a 5, 6 or 7 membered carbocyclic or heterocyclic ring); heteroaryl(C_{2-6})-alkenyl (wherein the heteroaryl group is optionally substituted halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, CN, NO₂, aryl, heteroaryl, amino, or dialkylamino, or C_{1-6} alkoxycarbonyl, or two adjacent substituents on the heteroaryl group can cyclise to form a 5, 6 or 7 membered carbocyclic or heterocyclic ring); C_{2-6} alkynyl; phenyl(C_{2-6})alkynyl (wherein the phenyl group is optionally substituted by halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, CN, NO₂, aryl, heteroaryl, amino or dialkylamino); C_{3-7} cycloalkyl; C_{1-6} alkoxycarbonyl; C_{1-6} alkylcarbonyl; C_{1-6} haloalkylcarbonyl; or aryl(C_{2-6})alkenylcarbonyl (wherein the aryl group may be optionally substituted halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, CN, NO₂, aryl, heteroaryl, amino or dialkylamino); or $-C(R^{51})(R^{52})-[CR^{53}=CR^{54}]z-R^{55}$;

where z is 1 or $2\frac{1}{5}$:

 R^{51} and R^{52} are each independently H, halo or C_{1-2} alkyl;

 R^{53} and R^{54} are each independently H, halogen, C_{1-4} alkyl or C_{1-4} haloalkyl; and

R⁵⁵ is optionally substituted aryl or optionally substituted heteroaryl.

7. (Previously Presented) A compound according to claim 1 wherein p is 1 or 2 and q is 2.

Amendment And Response Serial No. 10/581,177 Page -9-

8. (Original) A compound of formula II

$$(CRa_2)p$$

$$(R^4)_n$$

$$(R^3)_n$$

$$(II)$$

wherein R^2 , R^3 , R^4 , R^8 , Ra, n, p and q are as defined in claim 1 and R^8 may also be hydrogen or or *tert*- butoxycarbonyl; or

a compound of formula III

$$(CRa_2)p$$
 $(CRa_2)q$
 $(R^4)_n$
 $(CRa_2)q$
 R^2
 $(R^3)_{N-X}$
 $(R^4)_{N-X}$
 $(R^1)_{N-X}$
 $(R^1)_{N-X}$

wherein X, Y, R¹, R², R³, R⁴, Ra, n, p and q are as defined in claim 1 and R⁸ is hydrogen or *tert*- butoxycarbonyl.

- 9. (Currently Amended) An insecticidal acaricidal and nematicidal composition comprising an insecticidally, acaricidally or nematicidally effective amount of a compound of formula I as defined in claim 1.
- 10. (Currently Amended) A method of combating and controlling insects, acarines, nematodes or molluscs which comprises applying to a pest, to a locus of a pest, or to a plant susceptible to attack by a pest an insecticidally, acaricidally, nematicidally or molluscicidally effective amount of a compound of formula I according to claim 1.

Amendment And Response Serial No. 10/581,177 Page -10-

11. (New) A compound according to claim 1 wherein

X is NR¹¹;

R¹¹ is hydrogen, optionally substituted alkyl, optionally substituted aryl or optionally substituted heteroaryl; and

Y is C=O.

- 12. (New) A compound according to claim 11 wherein X is NH and Y is C=O.
- 13. (New) A compound according to claim 12 wherein each of Ra, R² and R³ is independently hydrogen, and n is 0.
- 14. (New) A compound according to claim 13 wherein both p and q are 2.
- 15. (New) A compound according to claim 14 wherein R¹ is an optionally substituted heteroaryl.
- 16. (New) A compound according to claim 15 wherein

$$R^8$$
 is $-C(R^{51})(R^{52})-[CR^{53}=CR^{54}]z-R^{55}$;

z is 1 or 2;

 R^{51} and R^{52} are each independently H, halo or C_{1-2} alkyl;

R⁵³ and R⁵⁴ are each independently H, halogen, C₁₋₄ alkyl or C₁₋₄ haloalkyl; and

R⁵⁵ is optionally substituted aryl or optionally substituted heteroaryl.

17. (New) A compound according to claim 16 wherein

z is 1;

R⁵¹ and R⁵² are each independently H;

R⁵³ and R⁵⁴ are each independently H; and

R⁵⁵ is optionally substituted aryl.

Amendment And Response Serial No. 10/581,177 Page -11-

18. (New) A compound according to claim 17 having a formula:

19. (New) An insecticidal acaricidal and nematicidal composition comprising an insecticidally, acaricidally or nematicidally effective amount of a compound of claim 18.

20. (New) An insecticidal acaricidal and nematicidal composition comprising an insecticidally, acaricidally or nematicidally effective amount of a compound of claim 14.